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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,463	08/23/2000	Matthew B. Haycock	884.303US1	2625

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EXAMINER	
PHAN, RAYMOND NGAN	

ART UNIT	PAPER NUMBER
2111	14

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/644,463	HAYCOCK ET AL.	
	Examiner	Art Unit	
	Raymond Phan	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: remarks filed on March 4, 2004.

2. This application has been examined. Claims 1-30 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 8-11, 14-18, 20-24, 26, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Oprescu et al. (US No. 5,325,355) in view of Schlyter (US NO. 4,363,121).

In regard to claims 1, 4, 9, 11, 14, 16, 20, 23-24, 26, Oprescu et al. disclose the integrated circuit comprising a driver having an output node to be coupled to the conductor external to the integrated circuit, such that driver launched an initial voltage value on the conductor when the driver changes states (see col. 5, lines 10-48). But Oprescu et al. do not specifically disclose the use of a receiver having input hysteresis having a threshold set such that the initial voltage value does not change an output state of the receiver. However Schlyter discloses the use of receiver having input hysteresis having a threshold set such that the initial voltage value does not change an output state of the receiver (see col. 3, lines 4-63).

Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Schlyter within the system of Oprescu et al. because it would provide reduce the transients and noise from the signals

In regard to claims 8, 21, Oprescu et al. disclose the step of including an initialization circuit to drive an input node of the driver low during initialization (see col. 6, lines 12-36).

In regard to claims 10, 15, Oprescu et al. disclose the step of including an initialization circuit to drive an input node of the driver low during initialization (see col. 6, lines 12-36); the control circuit to turn on the termination terminals and to turn off the other termination terminal when at least one initialization circuit has performed (see col. 6, lines 12-66).

In regard to claims 12, 17-18, 22, Oprescu et al. disclose the slew rate control circuit (see col. 14, lines 14-43).

5. Claims 2-3, 5-7, 10, 13, 19, 27, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Oprescu et al. in view of Schlyter and further in view of Klein (US NO. 6,040,714).

In regard to claims 2, 19, Oprescu et al. disclose driver comprising the termination transistor (see col. 10, lines 38-59). But Oprescu et al. or Schlyter do not specifically disclose the driver comprising the pullup transistor having an output impedance, and the pulldown transistor having an output impedance, the output impedance of the pullup transistor being greater than the output of the pulldown transistor. However Klein discloses disclose the driver comprising the pullup transistor having an output impedance, and the pulldown transistor having

an output impedance, the output impedance of the pullup transistor being greater than the output of the pulldown transistor (see col. 3, line 62 through col. 4, line 10). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Klein within the system of Oprescu et al. and Schlyter because it would provide the voltage changes at the output terminals.

In regarding of claim 3, even though the teachings of Klein does not specifically disclose output impedance of the pullup transistor is at least 5 times greater than the output impedance of the pulldown transistor, however one skilled in the art would have understood that they can choose set the number of time being greater to fulfill their need.

In regarding of claims 5, 7, 13, 27, even though the teachings of Oprescu et al. or Schlyter or Klein does not specifically disclose the IC is the circuit type from the group of processor, memory, however one skilled in the art would have understood that they can choose to implement the design into variety of type of circuits to fulfill their need.

In regard to claims 6, Oprescu et al. and Schlyter disclose the claimed subject matter except the teaching of the microprocessor coupled to the input node of the driver and the output node of the receiver, being configured to assert the ready signal to the output node of the driver and to monitor a signal on the output node of the receiver. However Klein discloses the microprocessor coupled to the input node of the driver and the output node of the receiver, being configured to assert the ready signal to the output node of the driver and to monitor a signal on the output node of the receiver (see col. 2, line 47 through col. 3, line 13). Therefore, it would have been obvious to a person of an ordinary skill in the art at

the time the invention was made to have combined the teachings of Klein within the system of Oprescu et al. and Schlyter because it would provide the voltage changes at the output terminals.

6. Claims 28, 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Oprescu et al. in view of Potter et al. (US No. 5,261,105).

In regard to claims 28, 30, Oprescu et al. disclose the method of synchronizing an agent to a bi-directional bus comprising de-asserting a control signal to drive a transmission line having a second agent driver present thereon to signify the agent is not ready to communicate on the bi-directional bus (see col. 5, lines 10-47); asserting a control signal to signify the agent is ready to communicate on the bi-directional bus (see col. 6, lines 37-65). But Oprescu et al. do no specifically disclose the ready signal to initiate the agent is ready to communicate on the bus and monitoring the transmission line for an indication that both the agent and the second agent are ready to communicate on the bi-directional bus. However Potter et al. disclose the ready signal to initiate the agent is ready to communicate on the bus (see col. 6, lines 30-55) and monitoring the transmission line for an indication that both the agent and the second agent are ready to communicate on the bi-directional bus (see col. 6, line 55 through col. 8, line 47). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Potter et al. within the system of Oprescu et al. because it would provide an improved arrangement for performing data transfers, in particular of blocks of data, among units.

7. Claim 29 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Oprescu et al. in view of Potter et al. and further in view of Klein (US NO. 6,040,714).

In regard to claim 29, Oprescu et al. and Potter et al. disclose the claimed subject matter as discussed above rejections except the teaching of the driver comprising the pullup transistor having an output impedance, and the pulldown transistor having an output impedance, the output impedance of the pullup transistor being greater than the output of the pulldown transistor. However Klein discloses disclose the driver comprising the pullup transistor having an output impedance, and the pulldown transistor having an output impedance, the output impedance of the pullup transistor being greater than the output of the pulldown transistor (see col. 3, line 62 through col. 4, line 10). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Klein within the system of Oprescu et al. and Potter et al. because it would provide the voltage changes at the output terminals.

Response to Amendment

8. Applicant's arguments, see pages 8-12, filed on March 4, 2004, with respect to the rejections of claims 1-30 under 35USC102/103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Oprescu et al. and Schlyter and Potter et al.

Conclusion

9. Claims 1-30 are rejected.

10. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Hewitt (US No. 5,790,811) disclose a system and method for performing data transfers during PCI idle clock cycles.

Ishibashi et al. (US No. 5,872,471) disclose a simultaneous bi-directional transmission circuit.

Ericksen et al. (US No. 4,535,294) disclose a differential receiver with self-adaptive hysteresis.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (703) 306-2756. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (703) 305-9656 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (703) 746-7239.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**raymond.phan@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Raymond Phan
5/15/04